

# NCGA House Select Committee on COVID19, Education

Jeff Sural  
*Director*

*5/14/2020*



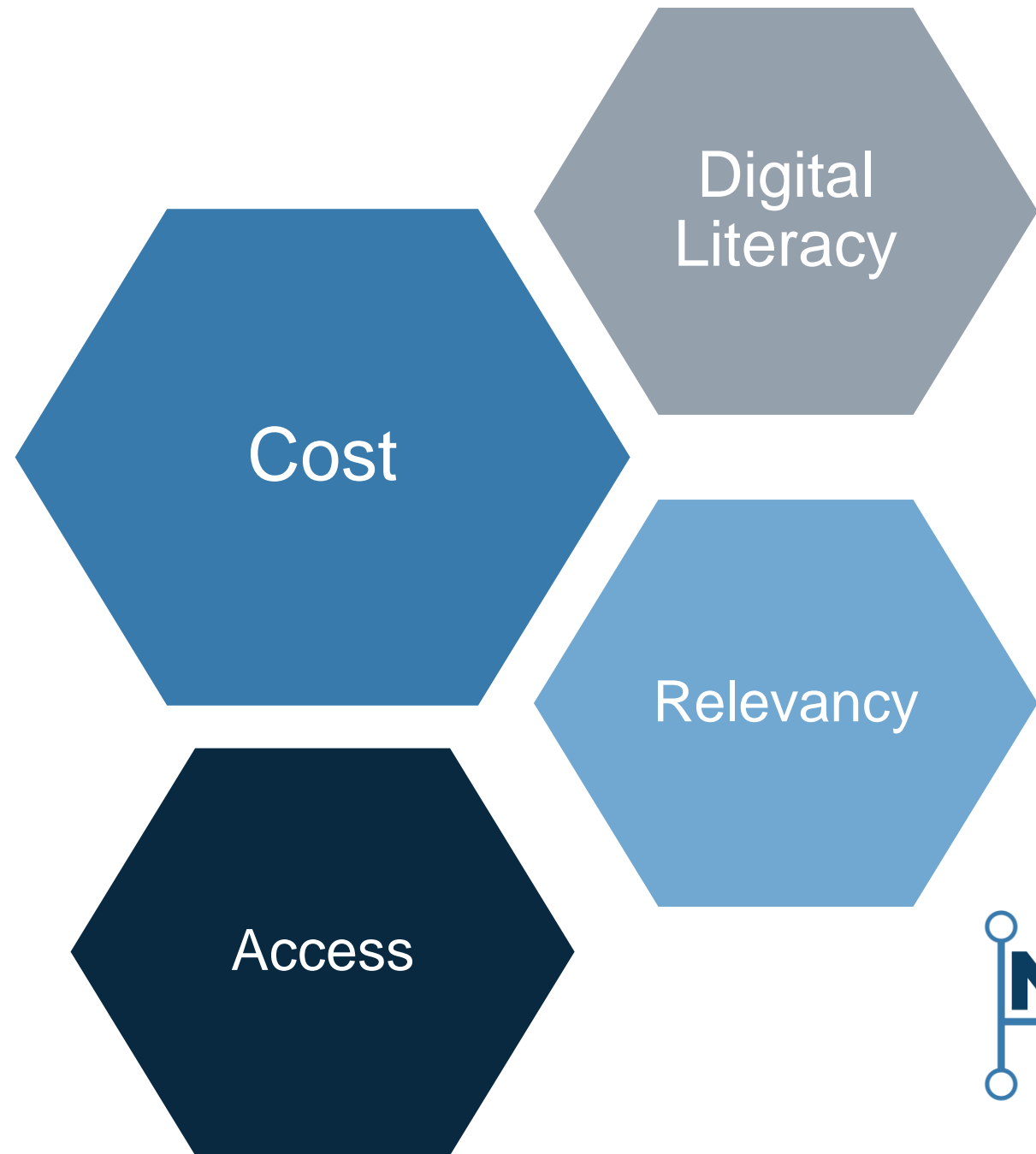
# Definitions

## **Broadband Adoption:**

The percentage of the population that subscribes to a broadband service

**The Homework Gap:**  
students are assigned homework requiring internet access to the internet, but don't have home access.

# Common Barriers to Broadband Adoption



# Measuring the Digital Divide

## Broadband and Digital Equity Data to Know

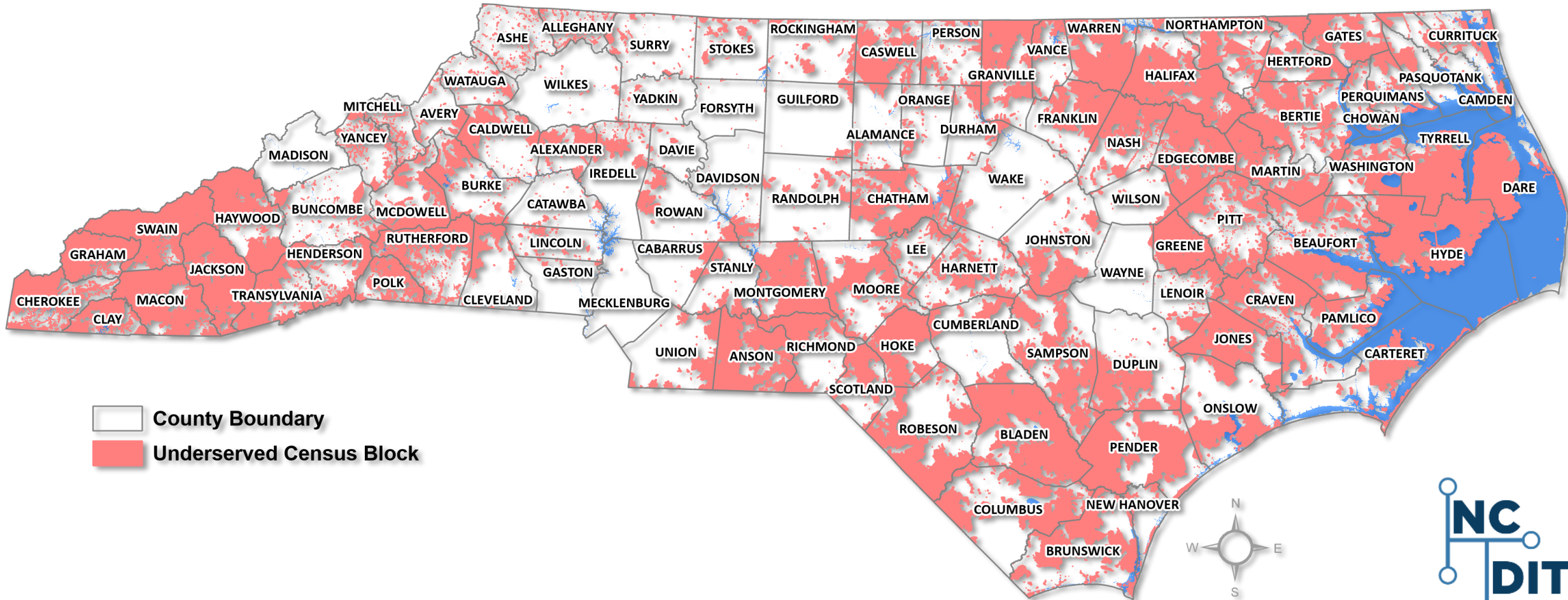


# NC Broadband Service Inventory

Underserved Census Blocks

Data derived from U.S. Federal Communications Commission Form 477

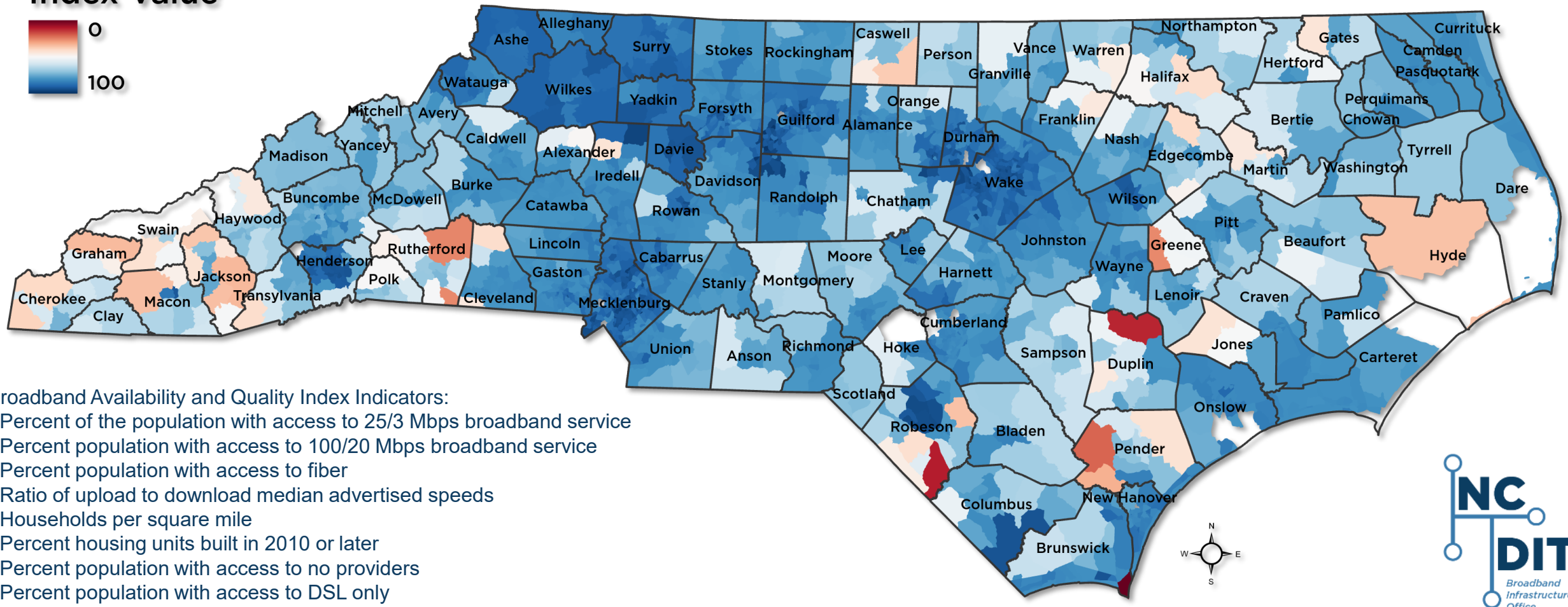
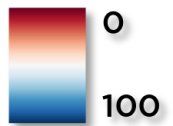
Data Release Dec. 2018.



# NC Broadband Availability and Quality Index By Census Tract

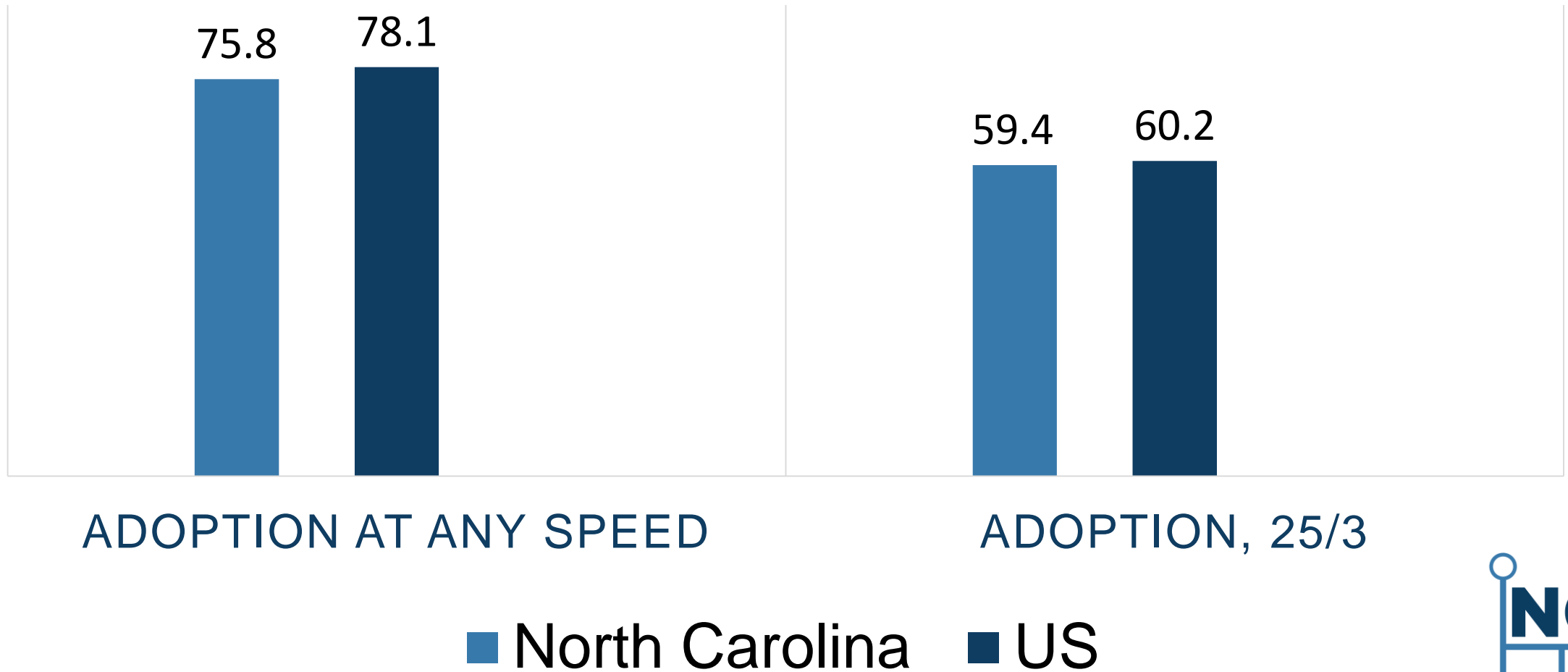
'The Broadband Adoption Potential Index' is a compilation of eight indicators (see below for list) combined to create a holistic measure of broadband access in NC's counties. For more information about the methodology, purpose, and how to understand your county's score visit: [www.ncbroadband.gov](http://www.ncbroadband.gov)

## Index Value



- Broadband Availability and Quality Index Indicators:
- Percent of the population with access to 25/3 Mbps broadband service
  - Percent population with access to 100/20 Mbps broadband service
  - Percent population with access to fiber
  - Ratio of upload to download median advertised speeds
  - Households per square mile
  - Percent housing units built in 2010 or later
  - Percent population with access to no providers
  - Percent population with access to DSL only

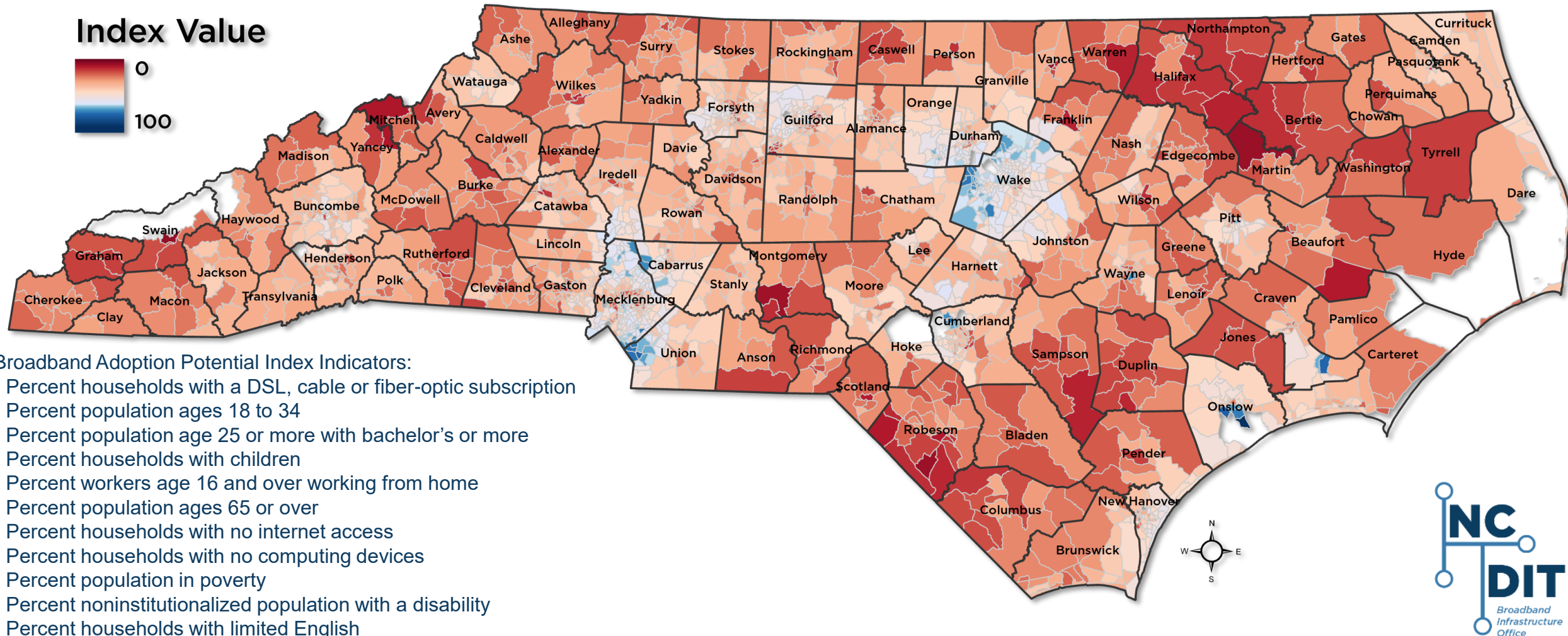
# 2017 Broadband Adoption Rates





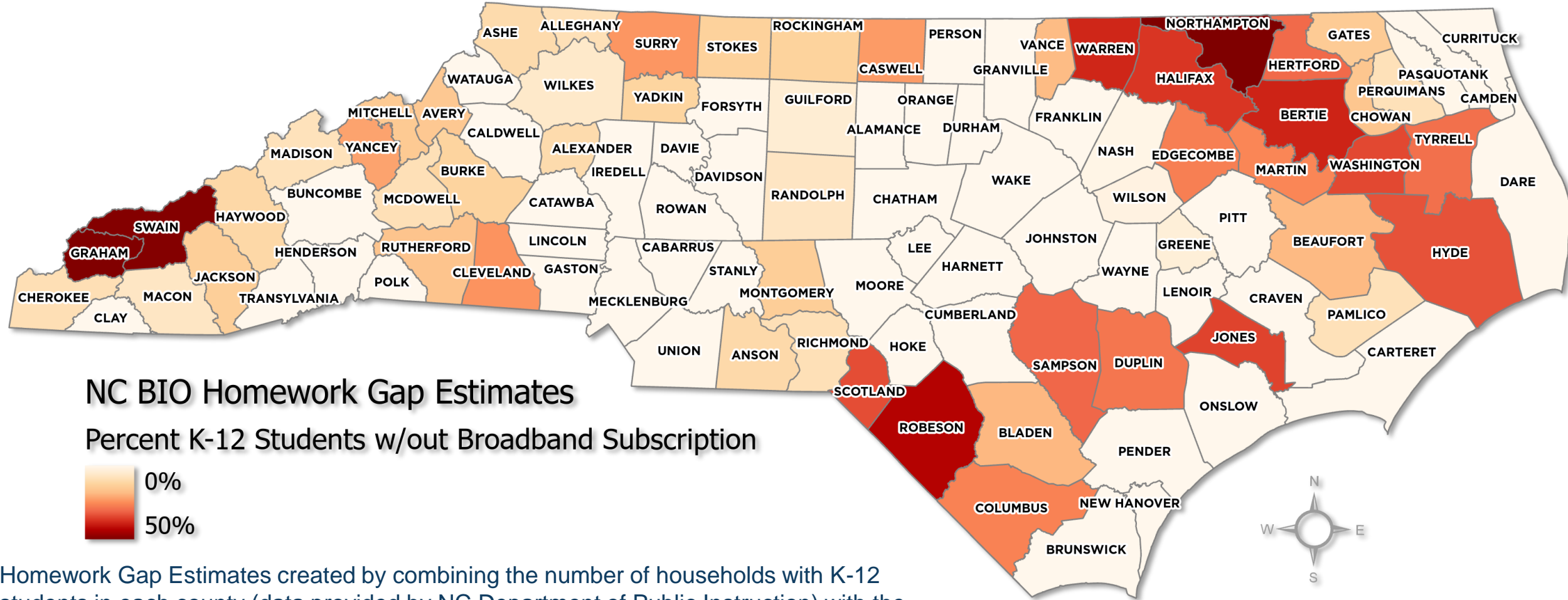
# NC Broadband Adoption Potential Index By Census Tract

'The Broadband Adoption Potential Index' is a compilation of eleven indicators (see below for list) combined to create a holistic measure of county's broadband adoption potential. For more information about the methodology, purpose, and how to understand your county's score visit: [www.ncbroadband.gov](http://www.ncbroadband.gov)





# North Carolina's Estimated Homework Gap



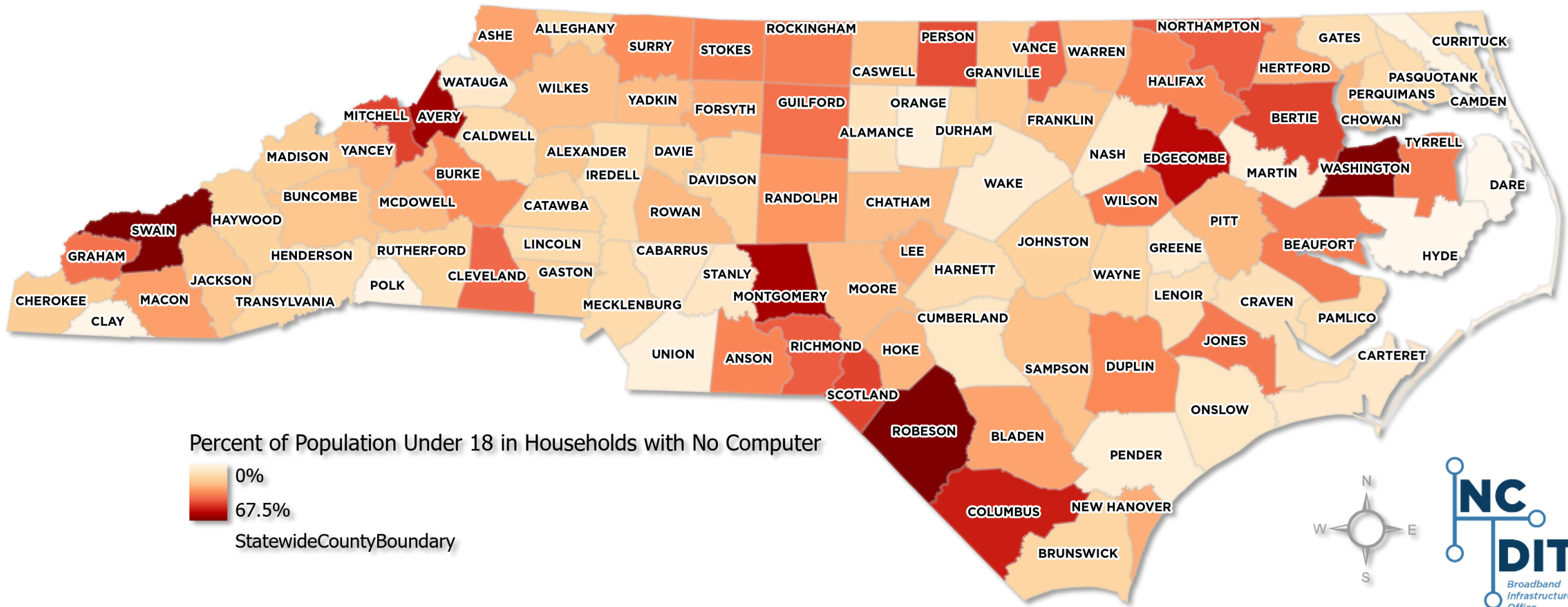
Homework Gap Estimates created by combining the number of households with K-12 students in each county (data provided by NC Department of Public Instruction) with the county percentage of households without a broadband subscription from U.S. Census Bureau American Community Survey (ACS) data.

The U.S. Census Bureau's ACS 5-year data contains estimates and margins of error. Data are based on a sample and are subject to sampling variability. Current Vintage: 2014-2018

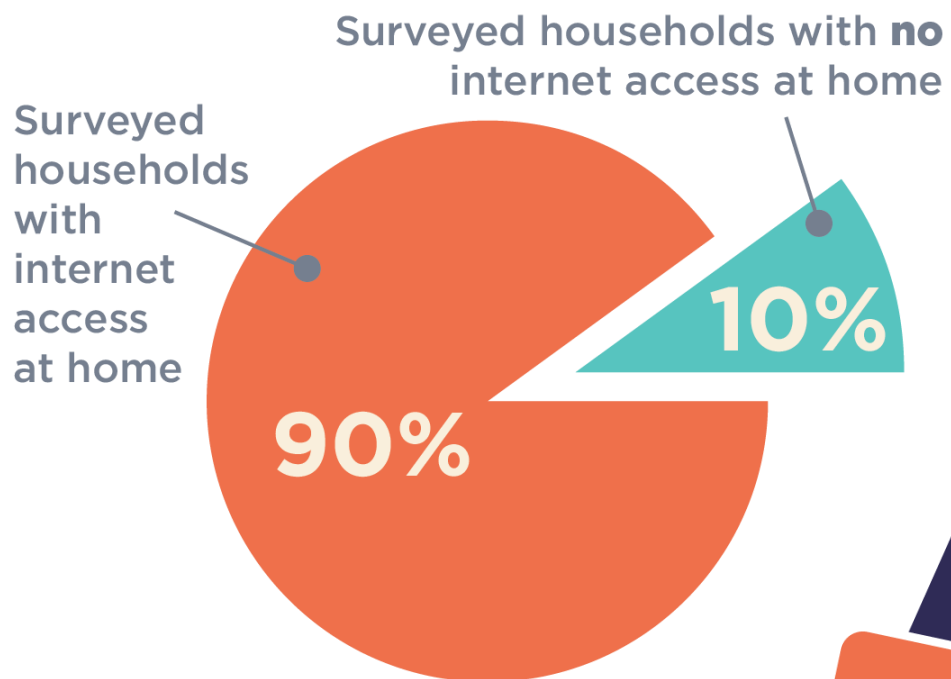
# NC Population Under 18 without Computers

The U.S. Census Bureau's American Community Survey (ACS) 5-year data contains estimates and margins of error. Data are based on a sample and are subject to sampling variability.

Current Vintage: 2014-2018



# Quantifying the Homework Gap



**67%** of those without internet access cite cost as the primary reason.



“Very Comfortable” Respondents:

**67%**

PARENT’S COMFORT LEVEL  
USING DIGITAL DEVICES FOR WORK

**55%**

STUDENT’S COMFORT LEVEL  
USING DIGITAL DEVICES FOR HOMEWORK



# Homework Gap Report and Recommendations

## THE HOMEWORK GAP IN NORTH CAROLINA

A Pilot Study of K-12 Households



**NC DIT**  
NORTH CAROLINA  
DEPARTMENT OF  
INFORMATION  
TECHNOLOGY  
Broadband Infrastructure Office

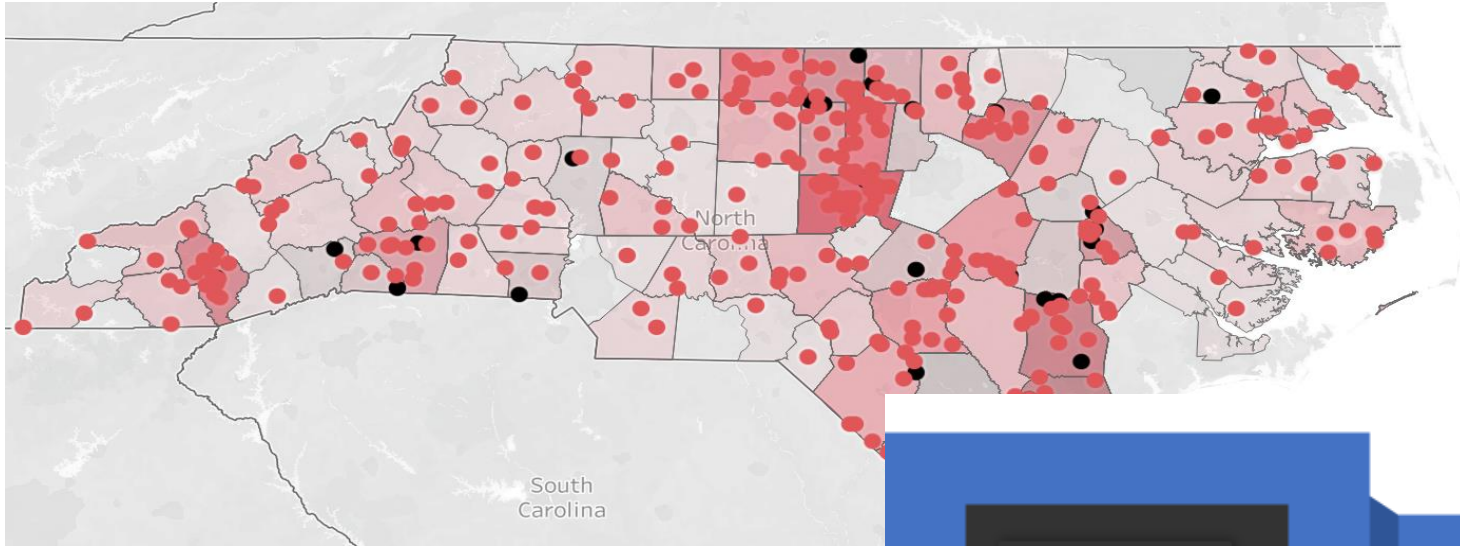
THE WILLIAM & IDA  
**FRIDAY INSTITUTE**  
FOR EDUCATIONAL INNOVATION

1. Create a grant program housed in NC BIO
2. Implement policies and programs that increase the availability, adoption, and use of broadband.
3. Foster cross-sector collaborations and public-private partnerships to implement and sustain multi-faceted solutions.
4. Continue to study the Homework Gap.
5. Local governments and LEAs should continue to innovate and partner with the state
6. Modify and update the survey instrument and its distribution.





# New Survey Tool Launch



Speed test complete!

Click the [Next](#) button to finish the survey.

✓

Latency	Download	Upload
22	49.0	32.8
ms	Mbps	Mbps

**NC DIT**  
BROADBAND INFRASTRUCTURE OFFICE  
NORTH CAROLINA  
DEPARTMENT OF  
TECHNOLOGY

Internet Connectivity Survey for NC Farmers

The **North Carolina Broadband Infrastructure Office**, with the **Friday Institute at NC State University**, is conducting a five-minute survey\* to gather data on internet connectivity from North Carolina farmers. The data will be used to inform research, policy and funding recommendations to assist communities where internet access is inadequate.

# **Closing the Digital Divide**

## **Through Programs, Policy & Tools**





# NC Digital Equity and Inclusion Collaborative



CHARLOTTE  
DIGITAL  
INCLUSION  
ALLIANCE



# BIO's Approach to Digital Inclusion



- Use Data and Best Practices
- Create Scalable Models
  - IMLS HWG
  - DNCR SL HH
- Holistic Programs
- Strategic Alignment
- Creative Opportunities
- Collaborate with and Support Experts





# Nationally Recognized Digital Inclusion Leader

- Only state with existing efforts to close the homework gap
- Only state requested to testify before U.S. Congress during Feb. 2020 digital inclusion hearing
- One of nine states profiled and heralded for its promising practices in the Pew Charitable Trust's Research and Report



# **COVID-19: NCDIT Immediate Response**

# Immediate Response

- FCC Pledge: don't terminate service; waive late fees; open Wi-Fi hotspots
- Governor Cooper and Secretary Doaks call with NC internet service providers
  - Most above and beyond FCC pledge
- Interactive map, website listing free and reduced-price internet offerings and public Wi-Fi access locations: [ncbroadband.gov/covid19broadband/](https://ncbroadband.gov/covid19broadband/)
- Identify resources to procure school bus equipment to support WiFi access
- Providing LEAs and DPI with guidance and support on convenience contracts for cellular service, tablets, hot spots and laptops, and negotiate better prices for duration of emergency; NCDIT Cybersecurity support
- Interagency Coordination/Communication: DPI, DHHS, EM, Counties, COGs

## To date, 180 WiFi Rangers for buses have been delivered to:

- Asheboro
- Avery
- Bertie
- Bladen
- Burke
- Caswell
- Chowan
- Clinton City Schools
- Columbus
- Duplin
- Edgecombe
- Franklin
- Gaston
- Gates
- Granville
- Guilford
- Halifax
- Harnett
- Hertford
- Johnston
- Martin
- Montgomery
- Northampton
- Pender
- Perquimans
- Person
- Randolph
- Robeson
- Rockingham
- Sampson
- Scotland
- Tyrrell
- Vance
- Warren
- Wayne
- Yadkin





# Immediate Response

- Expedite rolling payments for existing GREAT grant recipients to encourage faster deployment
- Exploring FCC waiver to allow school networks to serve as backhaul (\$6M/mo.)
- Support the Attorney General's convening responsibility pursuant to EO 124 with telecommunications providers regarding consumer protection rules
- Expedite issuance of next generation Dig Once policy
  - Expedite issuance of guidance to local governments for municipal road projects
- Use DIT iCenter authority to identify pilot sites for small-scale wireless projects
- DIT/DHHS to identify opportunities for investment on telehealth, including possible appropriation requests

# Long-term Solutions

- Ensure adequate federal grant funding is coming to the state
- Increase GREAT Grant to \$135M and amend grant proposal evaluation criteria to specifically fund areas not funded through federal programs and allow DIT flexibility to amend criteria and protest process for projects during state of emergency.
  - GREAT amendment or new program to support low-orbit satellite service; subsidy to rural homeowners for the equipment.
- Pass FIBER NC Act allowing county and local governments to finance or install infrastructure for use by internet service providers.
- Establish tax credit for broadband providers that accept federal Lifeline subsidy for home access.



# Long-term Solutions

- Require health insurance coverage for telemedicine services and connectivity costs.
- Consumer Protections:
  - Raise the broadband definition to 25/25 to create a minimum service threshold that can be used for grant funding
  - Hold ISPs to a contractual commitment: if you say 10/1, then serve at 10/1
  - Home equipment standards

